

REMARKS

Applicants note that the Examiner renumbered claims 23-32 as claims 26-35. Such amended renumbering is reflected in the present Amendment.

The present Amendment amends claims 26-35 and original claims 1-25 were canceled. Therefore, the present application has pending claims 26-35.

The Examiner is strongly urged to contact Applicants' Attorney, the undersigned, by telephone so as to schedule an interview to discuss the outstanding issues of the present application prior to examination.

In paragraph 4 of the Office Action the Examiner requested clarification as to the status of original claims 23-25. Original claims 23-25 have been canceled. Therefore, all of the original claims 1-25 as set forth in the specification as originally filed have been canceled and have been replaced by new claims 26-35. Therefore, examination should proceed with respect to claims 26-35.

Claims 31 and 33-35 stand objected to due to informalities noted by the Examiner in paragraph 12 of the Office Action. Amendments were made to claims 31 and 33 to correct the informalities noted by the Examiner. Therefore, this objection is overcome and should be withdrawn.

Claims 26-30 and 33-35 stand rejected under 35 USC §102(b) as being anticipated by Morris (U.S. Patent No. 4,503,287); and claim 31 stands rejected under 35 USC §103(a) as being unpatentable over Morris in view of Rothenberg (U.S. Patent No. 5,432,850). These rejections are traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 26-35 are not taught or suggested by Morris or Rothenberg

whether taken individually or in combination with each other as suggested by the Examiner.

Numerous arguments were presented distinguishing the features of the present invention from Morris in the Remarks of the December 8, 2004 Amendment, said Remarks being incorporated herein by reference. Particularly, it was shown that Morris does not teach or suggest numerous features of the present invention as recited in the claims, particularly with regard to the encrypting or decrypting of data between an information processing device and an information memory device on a data bus in a semiconductor chip as in the present invention.

The present invention is intended to mask the amount of power that is consumed on a data bus of a semiconductor chip or at the power terminal of the semiconductor chip when encryption/decryption processing is performed. As is understood by those of ordinary skill in the art, it is possible by observing the consumption of power on a data bus of a semiconductor chip to determine the actual values of data being encrypted, thereby defeating encryption. To understand this phenomena, the Examiner's attention is directed to the discussions on page 4, line 8 through page 7, line 17 and on page 17, line 20 through page 19, line 15 of the present application.

The present invention as clearly recited in the claims and as described in the specification makes it more difficult for one to observe power consumption of the data bus or a power terminal on the semiconductor chip so as to detect the original of data which is ultimately encrypted.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by Morris. In fact, Applicants fail to find any teaching or suggestion in Morris at any point that a data bus on an IC chip transfers encrypted data as in the present invention. Morris, specifically teaches that encrypted data passes through a telecommunication link 14 as discussed in col. 2, lines 15-27 and lines 62-68 thereof. Further, in Morris the telecommunications network or link 14 can be easily inspected and observed allowing one using the observed power consumption to detect the original of encrypted data. The present invention differs from Morris in that the present invention is directed to a data bus on a semiconductor chip which masks the power consumption on the data bus on a semiconductor chip in a manner so as to prevent one from observing the power consumption and guessing or determining the original of encrypted data.

Thus, Morris fails to teach or suggest a semiconductor chip having an information processing device, an information memory device, an encryption device, a decryption device and a bus wherein two value information corresponds to two different voltages in the semiconductor chip as recited in the claims.

Further, Morris fails to teach or suggest that data is transferred from the information processing device to the information memory device through the data bus and stored in the information memory device after the data is encrypted by the encryption device as recited in the claims.

Still further, Morris fails to teach or suggest that data read from the information memory device inputted into the information processing device through the bus after the decrypted in the decryption device as recited in the claims.

Therefore, Morris does not teach or suggest the features of the present invention as recited in the claims. Accordingly, reconsideration and withdrawal of the rejection of claims 26-30 and 33-35 as being anticipated by Morris under 35 USC §102(b) is respectfully requested.

The above noted deficiencies of Morris are not supplied by any of the other references of record. Particularly, the above described deficiencies of Morris are not supplied by Rothenberg.

Rothenberg similar to the teachings of Morris is directed to performing secure transmissions of data on a shared communication network. At no point is there any teaching or suggestion in Rothenberg regarding the encryption of data on a data bus or power terminal of a semiconductor chip as in the present invention. Rothenberg, the same as Morris, teaches the encryption of data between various systems and apparatuses across a network not the encryption of data on a data bus or a power terminal of a semiconductor chip as in the present invention as clearly recited in the claims.

Thus, Rothenberg suffers from the same deficiencies relative to the features of the present invention as recited in the claims as Morris. Therefore, combining the teachings of Morris and Rothenberg in the manner suggested by the Examiner in the Office Action still fails to teach or suggest the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §103(a) rejection of claim 31 as being unpatentable over Morris in view of Rothenberg is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references utilized in the rejection of claims 26-35.

In view of the foregoing amendments and remarks, applicants submit that claims 26-35 are in condition for allowance. Accordingly, early allowance of claims 26-35 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (520.38691X00).

Respectfully submitted,

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